Claims

1. A communication module (CM_1) adapted to be removably connected to a node (110) in a communications network (140), the module (CM_1) being adapted to perform a primary function pertaining to an over-all operation of the module (CM_1) and a secondary function involving control of the primary function, comprising

a first digital storage unit (M1) adapted to hold information pertaining to accomplishment of the primary function, and

a bi-directional interface (I_W) towards the first digital storage unit (M1),

characterized in that the bi-directional interface (I_W) comprises at least one optical interface and is adapted to provide a local wireless access to the first digital storage unit (M1), the local wireless access being provided independently of the primary function.

2. A communication module (CM_1) according to claim 1, **characterized in that** the bi-directional interface (I_W) is adapted to allow read out (D_o) of data from the first digital storage unit (M1).

3. A communication module (CM_1) according to any one of the claims 1 or 2, **characterized in that** the bi-directional interface (I_W) is adapted to allow updating (D_i) of the contents of the first digital storage unit (M1).

4. A communication module (CM_1) according to any one of the claims 2 or 3, **characterized in that** the first digital storage unit (M1) comprises a first register (Mtr) including status data with respect to the primary function, and the bi-directional interface (I_W) is adapted to

receive a request for status information, and

transmit a status report on basis of the request, the status report including data from the first register (Mtr) which pertains

to at least one parameter of the primary function.

5. A communication module (CM_1) according to any one of the claims 3 or 4, **characterized in that**

the first digital storage unit (M1) comprises a second and volatile register (Ctrl) adapted to store information pertaining to the accomplishment of the primary function,

the bi-directional interface (I_W) is adapted to receive at least one control command, and

it is adapted to alter at least one parameter in the second register (Ctrl) pertaining to the accomplishment of the primary function on basis of the at least one control command.

6. A communication module (CM_1) according to any one of the claims 3 - 5, **characterized in that**

it comprises a second digital storage unit (M2) adapted to temporarily store information pertaining to the accomplishment of the primary function,

the first digital storage unit (M1) comprises a third and non-volatile register (Prg) adapted to store information pertaining to the accomplishment of the primary function,

the bi-directional interface (I_W) is adapted to receive at least one piece of information pertaining to the accomplishment of the primary function, and

it is adapted to store the at least one piece of information in the second digital storage unit (M2).

7. A communication module (CM_1) according to claim 6, **characterized in that** it is adapted to, after reset of the module (CM_1), alter the contents of the third register (Prg) on basis of the at least one piece of information in the second digital storage unit (M2).

8. A communication module (CM_1) according to any one of the preceding claims, **characterized in that** it comprises an

access module (A) adapted to allow access to the first digital storage unit (M1) via the bi-directional interface (I_W), the access module (A) being controllable via an authorization unit (120, 121, 122; 123) such that the access module (A) blocks access to the first digital storage unit (M1) via the bi-directional interface (I_W) at least until an authorization signal (S_A) has been generated by the authorization unit (120, 121, 122; 123) with respect to the module (CM_1).

9. A communication module (CM_1) according to claim 8, **characterized in that** the access module (A) comprises an authorization sub-unit (a) adapted to receive a pass phrase (PW) from a portable software carrier unit (130) via the bi-directional interface (I_W), the access module (A) blocking access to the first digital storage unit (M1) via the bi-directional interface (I_W) at least until an acceptable pass phrase (PW) has been received.

10. A communication module (CM_1) according to any one of the claims 8 or 9, **characterized in that** the authorization signal ($S_A(F_{Adr\#1})$) includes an address field ($F_{Adr\#1}$) which designates a specific module position (Adr#1, ..., Adr#n) within the node (110).

11. A communication module (CM_1) according to any one of the claims 8 - 10, **characterized in that** the authorization signal ($S_A(ID_1)$) includes a unique identifier (ID_1) of the module (CM_1)

12. A communication module (CM_1) according to any one of the claims 10 or 11, **characterized in that** it comprises an identification unit (ID) adapted to indicate an active data transmission state (i_{ID}) upon reception of an authorization signal (S_A) which designates the communication module (CM_1).

18. A method according to any one of the claims 15 - 17, **characterized by** receiving a pass phrase (PW) in the communication module (CM_1), the pass phrase (PW) being received via the bi-directional optical interface (I_W).

19. A method according to claim 18, **characterized by** the pass phrase (PW) including a static segment (pw_S).

20. A method according to any one of the claims 18 or 19, **characterized by** the pass phrase (PW) including a dynamic segment (pw_D), the method comprising calculating the dynamic segment (pw_D) in the portable software carrier unit (130) and a central resource (120) respectively.

21. A method according to any one of the claims 18 - 20, **characterized by** the pass phrase (PW) including a cyclic redundancy checksum (CRC), the cyclic redundancy checksum (CRC) being based on data (D_i) which is to update the contents of the first digital storage (M1).

22. A method according to any one of the claims 15 - 21, **characterized by** updating (D_i) of the contents of the first digital storage unit (M1) via the bi-directional interface (I_W).

23. A method according to claim 22, **characterized by**

receiving at least one control command via the bi-directional interface (I_W), and

altering at least one parameter pertaining to the accomplishment of the primary function on basis of the at least one control command.

24. A method according to any one of the claims 22 or 23, **characterized by** the steps of:

receiving at least one piece of information pertaining to the

accomplishment of the primary function via the bi-directional interface (I_W),

storing temporarily the at least one piece of information in a second digital storage unit (M2),

resetting the communication module (CM_1), and

altering the contents of the first digital storage (M1) on basis of the at least one piece of information.

25. A method according to any one of the claims 15 - 24, **characterized by** reading out (D_o) data from the first digital storage unit (M1) via the bi-directional interface (I_W).

26. A method according to claim 25, **characterized by**

receiving a request for status information via the bi-directional interface (I_W), and

transmitting a status report on basis of the request, the status report including data pertaining to at least one parameter of the primary function.